

IN THE CLAIMS:

The following is a list of all pending claims including claims not amended by way of the present response.

1. (previously amended) A method for a single hardware platform to support multiple types of network service, comprising:

detecting a first request to establish a first network connection that flows through the hardware platform;

determining a first type of network service used by the first network connection;

downloading in response to the determining, to the hardware platform, software that is specific to the first type of network service;

executing the software to process traffic over the first network connection according to the first type of network service;

detecting a second request to establish a second network connection that flows through the hardware platform;

determining a second type of network service used by the second network connection;

downloading in response to the determining a second type of network service, to the hardware platform, software that is specific to the second type of network service; and

executing the software that is specific to the second type of network service to process traffic over the second network connection according to the

second type of network service, the software that is specific to the first type of network service being executed simultaneously with the software that is specific to the ~~first~~ second type of network service so that the hardware platform can simultaneously process traffic over the first connection and the second connection according to the first and second service types, respectively.

2. (previously amended) The method of claim 1 further comprising configuring a switch to direct the traffic that is associated with the first network connection, after being received from a physical line that transported it, to a processor that performs the executing of the software that is specific to the first type of network service.

3. (previously amended) The method of claim 2 wherein the downloading of the software that is specific to the first type of network service further comprises loading the software that is specific to the first type of network service into a memory that the processor has access to.

4. (previously amended) The method of claim 1 wherein at least one of the types of networking service is a voice transportation service.

5. (previously amended) The method of claim 1 wherein at least one of the types of networking service is an Asynchronous Transfer Mode (ATM) service.

6. (previously amended) The method of claim 1 wherein at least one of the types of networking service is a Frame Relay service.

Claims 7-27 (previously canceled)

28. (previously amended) A method, comprising:

downloading a first software image to a card that can execute the first software image, the first software image being specific to a first type of networking service so that the card can provide the first type of networking service over a physical line that emanates from the card;

downloading a second software image to the card, the card also able to execute the second software image, the second software image being specific to a second type of networking service so that the card can simultaneously provide the second type of networking service over the physical line with the first type of networking service; and

downloading a third software image to the card, the card also able to execute the third software image, the third software image being specific to a third type of networking service so that the card can simultaneously provide the third type of networking service over the physical line with the first and second types of networking services.

29. (canceled).

30. (previously amended) The method of claim 29 further comprising executing the first, second and third software images so as to simultaneously provide the first, second and third types of networking service.

31. (previously amended) The method of claim 28 wherein the physical line transports framed traffic.

32. (original) The method of claim 31 wherein said physical line is a T1/E1 physical line.

33. (previously amended) The method of claim 28 wherein one of the types of network service is a voice transportation service.

34. (previously amended) The method of claim 33 wherein another one of the types of network service is an ATM service.

35. (previously amended) The method of claim 33 wherein another one of the types of service is a Frame Relay service.

36. (original) The method of claim 28 further comprising configuring a switch that is located on the card to route traffic between a line interface that is located on the card and a processor that is located on the card and where the processor executes the second software routine.

37. (previously amended) The method of claim 28 wherein the downloading of the first software image is in response to a connection of the first networking service type being attempted through the card.

38. (previously amended) The method of claim 37 wherein the downloading of the second software image is in response to a connection of the second networking service type being attempted through the card.

39. (previously amended) The method of claim 38 wherein the downloading of the third software image is in response to a connection of the third networking service type being attempted through the card.

40. (currently amended) A card, comprising:

a) an interface to a physical line, the interface further comprising a line interface unit and a framer;

b) a plurality of digital signal processors and a plurality of processors coupled to local memory resources, said processors and local memory resources to that can simultaneously execute a plurality of service specific software routines that are each downloaded to ~~the card~~ said local memory resources as a consequence of if a connection manager deciding the card is to simultaneously provide a ~~corresponding~~ plurality of different networking service types over the physical line; and,

c) a switch coupled to the interface to that receives ingress traffic from the interface, the switch to and routes the traffic toward the processors.

41. (previously amended) The card of claim 40 wherein one of the types of networking service further comprises a voice transportation service.

42. (previously amended) The card of claim 41 wherein the plurality of processors further comprise a plurality of digital signal processors that help to provide the voice transportation service.

43. (previously amended) The card of claim 40 wherein one of the types of networking service further comprises an ATM service.

44. (previously amended) The card of claim 40 wherein one of the types of networking service further comprises a Frame Relay service.

45. (currently amended) A card, comprising:

a) first means for interfacing to a physical line;

b) second means for storing a plurality of downloaded service specific software routines for at least two different types of service;

c) third means for simultaneously executing~~simultaneously executing~~ said plurality of downloaded service specific software routines ~~that are downloaded to the card~~ if the card is to simultaneously provide a ~~corresponding~~ plurality of different networking service types over the physical line; and,

e) ~~third~~ fourth means for receiving ingress traffic from the first means and routing the ingress traffic to the ~~second~~ third means.

46. (previously amended) The card of claim 45 wherein one of the types of networking service further comprises a voice transportation service.

47. (previously amended) The card of claim 45 wherein one of the types of networking service further comprises an ATM service.

48. (previously amended) The card of claim 45 wherein one of the types of networking services further comprises Frame Relay.

49. (new) A card comprising:

- a) a line interface unit and a framer;
- b) a first processor to at least run said card's boot code;
- c) a second processor;
- d) a plurality of digital signal processors (DSPs);
- e) local memory resources coupled to said first and ^asecond processors and said plurality of DSPs, said second processor to transfer data between said plurality of DSPs and said local memory resources, said local memory resources to be downloaded into with networking service type specific software images, said card to simultaneously execute software images specific to different types of networking service, said card

to simultaneously support different types of networking service over a line coupled to said line interface unit.

50. (new) The card of claim 49 further comprising a TDM switch electrically coupled between said framer and said local memory resources.

51. (new) The card of claim 50 wherein said TDM switch is under software control.

52. (new) The card of claim 49 further comprising a boot flash memory coupled to said first processor.

53. (new) The card of claim 49 wherein said DSPs can form IP packets from ingress PCM traffic.

54. (new) The card of claim 49 wherein said DSPs can form egress PCM traffic from IP packets.